FIG. 1

```
  1   MAPWPELGDA QPNPDKYLEG AAGQQPTAPD KSKETNKNNT EAPVTKIELL

 51   PSYSTATLID EPTEVDDPWN LPTLQDSGIK WSERDTKGKI LCFFQGIGRL

101   ILLLGFLYFF VCSLDILSSA FQLVGGKMAG QFFSNSSIMS NPLLGLVIGV

151   LVTVLVQSSS TSTSIVVSMV SSSLLTVRAA IPIIMGANIG TSITNTIVAL

201   MQVGDRSEFR RAFAGATVHD FFNWLSVLVL LPVEVATHYL EIITQLIVES

251   FHFKNGEDAP DLLKVITKPF TKLIVQLDKK VISQIAMNDE KAKNKSLVKI

301   WCKTFTNKTQ INVTVPSTAN CTSPSLCWTD GIQNWTMKNV TYKENIAKCQ

351   HIFVNFHLPD LAVGTILLIL SLLVLCGCLI MIVKILGSVL KGQVATVIKK

401   TINTDFPFPF AWLTGYLAIL VGAGMTFIVQ SSSVFTSALT PLIGIGVITI

451   ERAYPLTLGS NIGTTTTAIL AALASPGNAL RSSLQIALCH FFFNISGILL

501   WYPIPFTRLP IRMAKGLGNI SAKYRWFAVF YLIIFFFLIP LTVFGLSLAG

551   WRVLVGVGVP VVFIIILVLC LRLLQSRCPR VLPKKLQNWN FLPLWMRSLK

601   PWDAVVSKFT GCFQMRCCCC CRVCCRACCL LCGCPKCCRC SKCCEDLEEA

651   QEGQDVPVKA PETFDNITIS REAQGEVPAS DSKTECTAL*    (SEQ ID NO:01)
```

BOZICEVIC, FIELD & FRANCIS LLP
Paula A. Borden
200 Middlefield Rd, Suite 200
Menlo Park, Ca 94025

Express Mail No. EV 036410360 US
Telephone (650) 327-3400
Fax (650) 327-3231

Inventor(s) Cannon et al.
For: "Human Intestinal Npt2B"
Docket No. ROCH-001DIV

FIG. 2i

```
   1 CTGACGTAGG CCCAGCACCT GCGGAGGGAG CGCTGACCAT GGCTCCCTGG
  51 CCTGAATTGG GAGATGCCCA GCCCAACCCC GATAAGTACC TCGAAGGGGC
 101 CGCAGGTCAG CAGCCCACTG CCCCTGATAA AAGCAAAGAG ACCAACAAAA
 151 ATAACACTGA GGCACCTGTA ACCAAGATTG AACTTCTGCC GTCCTACTCC
 201 ACGGCTACAC TGATAGATGA GCCCACTGAG GTGGATGACC CCTGGAACCT
 251 ACCCACTCTT CAGGACTCGG GGATCAAGTG GTCAGAGAGA GACACCAAAG
 301 GGAAGATTCT CTGTTTCTTC CAAGGGATTG GGAGATTGAT TTTACTTCTC
 351 GGATTTCTCT ACTTTTTCGT GTGCTCCCTG GATATTCTTA GTAGCGCCTT
 401 CCAGCTGGTT GGAGGAAAAA TGGCAGGACA GTTCTTCAGC AACAGCTCTA
 451 TTATGTCCAA CCCTTTGTTG GGGCTGGTGA TCGGGGTGCT GGTGACCGTC
 501 TTGGTGCAGA GCTCCAGCAC CTCAACGTCC ATCGTTGTCA GCATGGTGTC
 551 CTCTTCATTG CTCACTGTTC GGGCTGCCAT CCCCATTATC ATGGGGGCCA
 601 ACATTGGAAC GTCAATCACC AACACTATTG TTGCGCTCAT GCAGGTGGGA
 651 GATCGGAGTG AGTTCAGAAG AGCTTTTGCA GGAGCCACTG TCCATGACTT
 701 CTTCAACTGG CTGTCCGTGT TGGTGCTCTT GCCCGTGGAG GTGGCCACCC
 751 ATTACCTCGA GATCATAACC CAGCTTATAG TGGAGAGCTT CCACTTCAAG
 801 AATGGAGAAG ATGCCCCAGA TCTTCTGAAA GTCATCACTA AGCCCTTCAC
 851 AAAGCTCATT GTCCAGCTGG ATAAAAAAGT TATCAGCCAA ATTGCAATGA
 901 ACGATGAAAA AGCGAAAAAC AAGAGTCTTG TCAAGATTTG GTGCAAAACT
 951 TTTACCAACA AGACCCAGAT TAACGTCACT GTTCCCTCGA CTGCTAACTG
1001 CACCTCCCCT TCCCTCTGTT GGACGGATGG CATCCAAAAC TGGACCATGA
1051 AGAATGTGAC CTACAAGGAG AACATCGCCA AATGCCAGCA TATCTTTGTG
1101 AATTTCCACC TCCCGGATCT TGCTGTGGGC ACCATCTTGC TCATACTCTC
1151 CCTGCTGGTC CTCTGTGGTT GCCTGATCAT GATTGTCAAG ATCCTGGGCT
1201 CTGTGCTCAA GGGGCAGGTC GCCACTGTCA TCAAGAAGAC CATCAACACT
1251 GATTTCCCCT TTCCCTTTGC ATGGTTGACT GGCTACCTGG CCATCCTCGT
1301 CGGGGCAGGC ATGACCTTCA TCGTACAGAG CAGCTCTGTG TTCACGTCGG
1351 CCTTGACCCC CCTGATTGGA ATCGGCGTGA TAACCATTGA GAGGGCTTAT
1401 CCACTCACGC TGGGCTCCAA CATCGGCACC ACCACCACCG CCATCCTGGC
1451 CGCCTTAGCC AGCCCTGGCA ATGCATTGAG GAGTTCACTC CAGATCGCCC
1501 TGTGCCACTT TTTCTTCAAC ATCTCCGGCA TCTTGCTGTG GTACCCGATC
1551 CCGTTCACTC GCCTGCCCAT CCGCATGGCC AAGGGGCTGG GCAACATCTC
1601 TGCCAAGTAT CGCTGGTTCG CCGTCTTCTA CCTGATCATC TTCTTCTTCC
1651 TGATCCCGCT GACGGTGTTT GGCCTCTCGC TGGCCGGCTG GCGGGTGCTG
1701 GTTGGTGTCG GGGTTCCCGT CGTCTTCATC ATCATCCTGG TACTGTGCCT
1751 CCGACTCCTG CAGTCTCGCT GCCCACGCGT CCTGCCGAAG AAACTCCAGA
1801 ACTGGAACTT CCTGCCGCTG TGGATGCGCT CGCTGAAGCC CTGGGATGCC
1851 GTCGTCTCCA AGTTCACCGG CTGCTTCCAG ATGCGCTGCT GCTGCTGCTG
1901 CCGCGTGTGC TGCCGCGCGT GCTGCTTGCT GTGTGGCTGC CCCAAGTGCT
1951 GCCGCTGCAG CAAGTGCTGC GAGGACTTGG AGGAGGCGCA GGAGGGGCAG
2001 GATGTCCCTG TCAAGGCTCC TGAGACCTTT GATAACATAA CCATTAGCAG
2051 AGAGGCTCAG GGTGAGGTCC CTGCCTCGGA CTCAAAGACC GAATGCACGG
2101 CCTTGTAGGG GACGCCCCAG ATTGTCAGGG ATGGGGGGAT GGTCCTTGAG
2151 TTTTGCATGC TCTCCTCCCT CCCACTTCTG CACCCTTTCA CCACCTCGAG
2201 GAGATTTGCT CCCCATTAGC GAATGAAATT GATGCAGTCC TACCTAACTC
2251 GATTCCCTTT GGCTTGGTGG GTAGGCCTGC AGGGCACTTT TATTCCAACC
2301 CCTGGTCACT CAGTAATCTT TTACTCCAGG AAGGCACAGG ATGGTACCTA
2351 AAGAGAATTA GAGAATGAAC CTGGCGGGAC GGATGTCTAA TCCTGCACCT
2401 AGCTGGGTTG GTCAGTAGAA CCTATTTTCA GACTCAAAAA CCATCTTCAG
2451 AAAGAAAAGG CCCAGGGAAG GAATGTATGA GAGGCTCTCC CAGATGAGGA
2501 AGTGTACTCT CTATGACTAT CAAGCTCAGG CCTCTCCCTT TTTTTAAACC
2551 AAAGTCTGGC AACCAAGAGC AGCAGCTCCA TGGCCTCCTT GCCCCAGATC
2601 AGCCTGGGTC AGGGGACATA GTGTCATTGT TTGGAAACTG CAGACCACAA
```

FIG. 2ii

```
2651 GGTGTGGGTC TATCCCACTT CCTAGTGCTC CCCACATTCC CCATCAGGGC
2701 TTCCTCACGT GGACAGGTGT GCTAGTCCAG GCAGTTCACT TGCAGTTTCC
2751 TTGTCCTCAT GCTTCGGGGA TGGGAGCCAC GCCTGAACTA GAGTTCAGGC
2801 TGGATACATG TGCTCACCTG CTGCTCTTGT CTTCCTAAGA GACAGAGAGT
2851 GGGGCAGATG GAGGAGAAGA AAGTGAGGAA TGAGTAGCAT AGCATTCTGC
2901 CAAAAGGGCC CCAGATTCTT AATTTAGCAA ACTAAGAAGC CCAATTCAAA
2951 AGCATTGTGG CTAAAGTCTA ACGCTCCTCT CTTGGTCAGA TAACAAAGC
3001 CCTCCCTGTT GGATCTTTTG AAATAAAACG TGCAAGTTAT CCAGGCTCGT
3051 AGCCTGCATG CTGCCACCTT GAATCCCAGG GAGTATCTGC ACCTGGAATA
3101 GCTCTCCACC CCTCTCTGCC TCCTTACTTT CTGTGCAAGA TGACTTCCTG
3151 GGTTAACTTC CTTCTTTCCA TCCACCCACC CACTGGAATC TCTTTCCAAA
3201 CATTTTTCCA TTTTCCCACA GATGGGCTTT GATTAGCTGT CCTCTCTCCA
3251 TGCCTGCAAA GCTCCAGATT TTTGGGGAAA GCTGTACCCA ACTGGACTGC
3301 CCAGTGAACT GGGATCATTG AGTACAGTCG AGCACACGTG TGTGCATGGG
3351 TCAAGGGGGT GTGTTCCTTC TCATCCTAGA TGCCTTCTCT GTGCCTTCCA
3401 CAGCCTCCTG CCTGATTACA CCACTGCCCC CGCCCCACCC TCAGCCATCC
3451 CAATTCTTCC TGGCCAGTGC GCTCCAGCCT TATCTAGGAA AGGAGGAGTG
3501 GGTGTAGCCG TGCAGCAAGA TTGGGGCCTC CCCCATCCCA GCTTCTCCAC
3551 CATCCCAGCA AGTCAGGATA TCAGACAGTC CTCCCCTGAC CCTCCCCCTT
3601 GTAGATATCA ATTCCCAAAC AGAGCCAAAT ACTCTATATC TATAGTCACA
3651 GCCCTGTACA GCATTTTTCA TAAGTTATAT AGTAAATGGT CTTCTAGTGC
3701 TCTCATTTGG AAATGAGGCA GGCTTCTTCT ATGAAATGTA AAGAAAGAAA
3751 CCACTTTGTA TATTTTGTAA TACCACCTCT GTGGCCATGC CTGCCCCGCC
3801 CACTCTGTAT ATATGTAAGT TAAACCCGGG CAGGGGCTGT GGCCGTCTTT
3851 GTACTCTGGT GATTTTTAGA AATTGAATCT TTGTACTTGC ATTGATTGTA
3901 TAATAATTTT GAGACCAGGT CTCGCTGTGT TGCTCAGGCT GGTCTCAAAC
3951 TCCTGAGATC AAGCAATCCG CCCACCTCAG CCTCCCAAAG TGCTGAGATC
4001 ACAGGCGTGA GCCACCACCA GGCCTGATTG TAATTTTTTT TTTTTTTTT
4051 TTTACTGGTT ATGGGAAGGG AGAAATAAAA TCATCAAACC CAAAAAAAAA
4101 AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAA    (SEQ ID NO:02)
```